

Please delete Claims 28-32 without prejudice.

1. (Previously Canceled)
2. (Previously Canceled)
3. (Previously Canceled)
4. (Previously Canceled)
5. (Previously Canceled)
6. (Previously Canceled)
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20. (Previously Canceled)
21. (Previously Canceled)
22. (Previously Canceled)
23. (Previously Canceled)
24. (Previously Canceled)
25. (Previously Canceled)
26. (Previously Canceled)

27. (Currently Amended) A biomass gasification system designed for combusting biomass material containing silica such as including straw, comprising:

a fuel magazine capable of storing a volume of said biomass material;

a disintegration unit in communication with said fuel magazine to receive said biomass material from said fuel magazine;

a primary combustion chamber creating a primary combustion of biomass material to create a producer gas, wherein said biomass material contains silica;

an agitator within said primary combustion chamber to mix said biomass material during said primary combustion;

wherein said agitator is comprised of a rotating grate rotatably positioned within said primary combustion chamber for supporting said biomass material during gasification and a drive motor mechanically connected to said rotating grate for rotating said rotating grate;

a feeder unit including a conveyor in communication with said primary combustion chamber for delivering biomass material from said disintegration unit into said primary combustion chamber and onto said rotating grate;

wherein said feeder unit includes a plunger member to push said biomass material through an opening within said primary combustion chamber onto said rotating grate;

wherein said rotating grate includes a plurality of openings for allowing air to pass upwardly through said biomass material positioned upon said rotating grate;

an air distribution system for forcing air beneath said rotating grate through said plurality of openings;

an ash disposal unit positioned beneath said rotating grate for removing collected ash from said primary combustion chamber;

a secondary combustion chamber containing a secondary combustion of said producer gas, wherein said second combustion chamber is fluidly connected to said primary combustion chamber;

an oxygen mixer fluidly connected between said primary combustion chamber and said secondary combustion chamber to introduce additional oxygen into said producer gas emitted

from said biomass material to increase a temperature of said second combustion to at least 2,000 degrees Fahrenheit; and

a heat exchanger fluidly connected to said secondary combustion chamber;

a silica collector positioned at a bottom of said secondary combustion chamber for collecting liquid silica, wherein silica collects on an inner wall of said secondary combustion chamber and drains into said silica collector, wherein said silica collector is comprised of a cart;
and

a volume of liquid within said silica collector.

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

Please add the following claim

33. (New) A biomass gasification system designed for combusting biomass material containing silica including straw, comprising:

a fuel magazine capable of storing a volume of said biomass material;

a disintegration unit in communication with said fuel magazine to receive said biomass material from said fuel magazine;

a primary combustion chamber creating a primary combustion of biomass material to create a producer gas, wherein said biomass material contains silica;

a mechanical agitator within said primary combustion chamber to mix said biomass material during said primary combustion;

a feeder unit including a conveyor in communication with said primary combustion chamber for delivering biomass material from said disintegration unit into said primary combustion chamber;

an air distribution system for forcing air beneath said rotating grate through said plurality of openings;

an ash disposal unit positioned beneath said mechanical agitator for removing collected ash from said primary combustion chamber;

a secondary combustion chamber containing a secondary combustion of said producer gas, wherein said second combustion chamber is fluidly connected to said primary combustion chamber;

an oxygen mixer fluidly connected between said primary combustion chamber and said secondary combustion chamber to introduce additional oxygen into said producer gas emitted from said biomass material to increase a temperature of said second combustion to at least 2,000 degrees Fahrenheit;

a heat exchanger fluidly connected to said secondary combustion chamber; and

a silica collector positioned at a bottom of said secondary combustion chamber for collecting liquid silica, wherein silica collects on an inner wall of said secondary combustion chamber and drains into said silica collector.